DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
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Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-027452
Date Inspected: 13-Apr-2012

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: American Bridge/Fluor Enterprises, a JV

OSM Arrival Time: 700
OSM Departure Time: 1530
Location: Job Site

CWI Name:	Salvador Merino			**CWI Present:**	☑ Yes	☐ No		
Inspected CWI report:	☐ Yes	☐ No	☑ N/A	**Rod Oven in Use:**	☑ Yes	☐ No	☐ N/A	
Electrode to specification:	☑ Yes	☐ No	☐ N/A	**Weld Procedures Followed:**	☑ Yes	☐ No	☐ N/A	
Qualified Welders:	☑ Yes	☐ No	☐ N/A	**Verified Joint Fit-up:**	☑ Yes	☐ No	☐ N/A	
Approved Drawings:	☑ Yes	☐ No	☐ N/A	**Approved WPS:**	☑ Yes	☐ No	☐ N/A	
				Delayed / Cancelled:	☐ Yes	☑ No	☐ N/A	

Bridge No: 34-0006
Component: OBG Components

Summary of Items Observed:

On this date, Quality Assurance Inspector (QAI) Kenneth Riley was present at the San Francisco Oakland bay Bridge job site at Yerba Buena Island to observe erection and welding activities for the San Francisco Oakland Bay Bridge (SFOBB) project. This Quality Assurance Inspector (QAI) observed the following work performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below:

Deck Access Holes (DAH)

This QAI observed welder Salvador Sandoval preparing the 6E PP46.5 E5 NE DAH for the root pass. Due to inclement weather the contractor had built a hut to protect the welding operations from the wind and rain. The welder had informed this QA Inspector that the wooden walls where too close to the weld joint and needed the carpenter's to adjust the wall spacing from the weld joint prior to the start of welding. Later in the shift the welder was placing fire blankets on the water and air lines that where placed within the vicinity of the work zone that run the length of the bridge. The fire blankets were placed to protect the painted surface of the pipes. The welder then started with the Shielded Metal Arc Welding (SMAW) root pass at 6E PP96.5 E5 NW DAH with a 3.2mm diameter E7018 electrode for the Complete Joint Penetration (CJP) weld. The Welding Procedure Specification (WPS) used was ABF-WPS-D15-1010 rev 1, with a measured welding amp of 129. The pre-heat for this location was measured at 65 degrees C (150 degrees F) using a weed burner which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

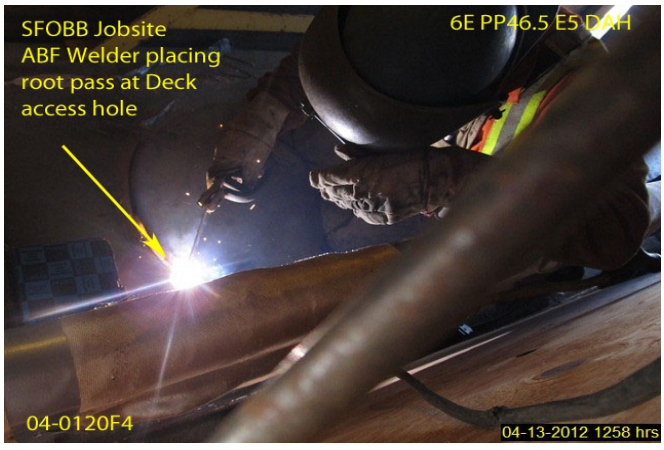
This QAI observed that welder Khit Lounechaney was placing the Shielded Metal Arc Welding (SMAW) root pass at 12W PP109.5 W5 SW DAH with a 3.2mm diameter E7018 electrode for the Complete Joint Penetration (CJP) weld. The Welding Procedure Specification (WPS) used was ABF-WPS-D15-1040C with a measured welding amp of 132. The pre-heat for this location was measured at 65 degrees C (150 degrees F) using a weed burner which were verified using a tempstik and infrared gun by the QC. The welder was also observed by this QAI as using a chipping hammer, power grinder and power wire wheel for the interpass cleaning. The QC inspector for this location was Salvador Merino and was observed verifying and documenting the welding parameters for this location, along with overseeing the welding operations. At the time of the observations no issues were noted by the QAI.

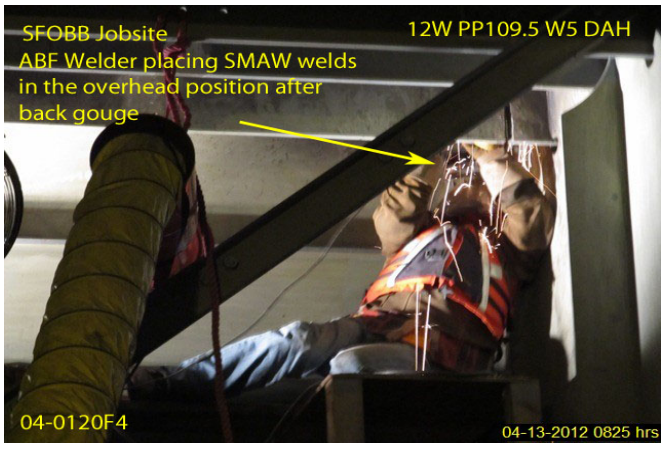
J.W. Spencer

This QAI observed that J.W. Spencer Mechanical was working on the east bound lane behind the north barrier rail. The sub-contractor was observed placing the 50mm domestic water line and the 100mm compressed air line in the brackets at PP97 – PP108. This was in preparations for the continued fabrication of both lines to be welded at a later date. This QA inspector observed that no welding was being performed by J.W. Spencer on this date. The QC inspector for this location was Steve Jensen and was observed overseeing the in progress operations. At the time of the observations no issues were noted by the QAI.

QA Observation and Verification Summary

The QA inspector observed the QC activities and the welding utilizing the WPS's as noted above, which appeared to be posted at the weld station. The welding parameters and surface temperatures were verified by the QC inspectors utilizing a Fluke 337 clamp meter for the electrical welding parameters and a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. The consumables utilized for the welding process stated appeared to comply with the AWS Specification and AWS Classification. The QC inspection, testing and welding performed on this shift appeared to be in general compliance with the contract documents. At random intervals, the QAI verified the QC inspection, testing, welding parameters and the surface temperatures utilizing various inspection equipment and gages which included a Fluke 337 Clamp Meter and Tempilstik Temperature indicators.





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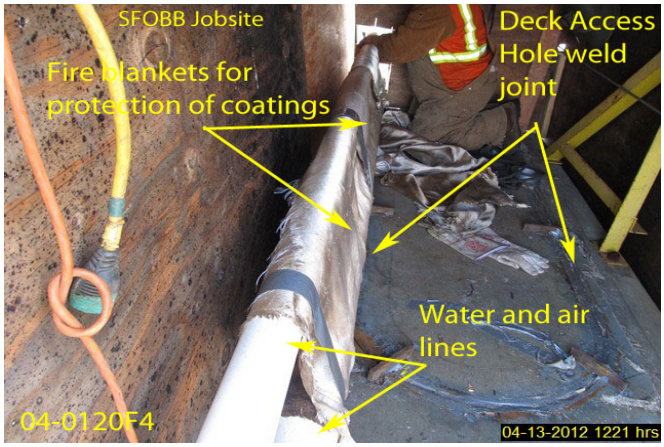

Summary of Conversations:

Basic conservation, fundamental to completion of the tasks at hand, occurred between this QAI and ABF QC personnel.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riley,Ken	Quality Assurance Inspector
Reviewed By:	Levell,Bill	QA Reviewer